ABSTRACT

Analgesic Activity Test of 4-Methoxybenzoylurea using Writhing Method In Mice (*Mus Musculus*)

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The purposes of this experiment are to test the analgesic activity of 4-methoxybenzoylurea and compare its analgesic activity with benzoylurea, the parent compound of 4-methoxybenzoylurea, and acetylsalicylic acid. The compound was synthesized by reacting of 4-methoxybenzoyl chloride with urea based on Schotten-Baumann method. The product was recrystallized using ethanol. The percent yield of this product was 28,33%. The structure identification of the compound was analyzed by comparing the data from ultraviolet-visible spectra and infrared spectra of 4-methoxybenzoylurea with 4-methoxybenzoyl chloride and 4-methoxybenzoylurea that has been synthesized by Siswandono (1999). The result showed that the compound was 4-methoxybenzoylurea. Analgesic activity of the compound was tested in mice using writhing method with 0,6% acetic acid as pain-inducer. The result showed that the ED_{50} value of 4-methoxybenzoylurea, benzoylurea, and acetylsalicylic acid were 152,17 ± 20,56 mg/kg mice weight, 216,18 ± 85,88 mg/kg mice weight and 78,91 ± 7,29 mg/kg mice weight, respectively. Statistically, the analgesic activity of 4-methoxybenzoylurea was compared with benzoylurea and acetylsalicylic acid.

Keyword : analgesic activity test; 4-methoxybenzoylurea; writhing test method